Maine Coastline

News from the Maine Coastal Program Winter 2002

Scott Richardson

The new Center contains a research laboratory, interpretive exhibits, and a teaching lab that provides area students with hands-on research opportunities.

Maine Coastal Ecology Center Opens In Wells

Southern Maine has a valuable new resource for coastal researchers and educators—the Maine Coastal Ecology Center at the Wells Estuarine Research Reserve. "The new building offers well-equipped research and teaching laboratories to enhance understanding of coastal ecosystems" says Reserve Director Paul Dest. "The three years of planning and $2.6 million invested in this project will pay tremendous dividends for the region."

The Center's teaching laboratory, housed in the newly relocated and renovated Laudholm Farm creamery building, accommodates 28 students at a time. Even before the building's dedication on September 29, groups had begun using the Center's lab for summer camp programs, teacher trainings and an entomological survey. Middle and high school students are testing water samples from the Little River and Webhannet River estuaries—part of an extensive water quality-monitoring program that students and volunteers have run since 1991. "The new Coastal Ecology Center gives students an opportunity—not just to process their water samples—but to learn more about how the research process works," says Brian Doyle, a teacher at Noble Junior High School in Berwick.

The Reserve plans to expand the Center's offerings beyond students and teachers—providing ecological training for town planning officials, code enforcement officers, community volunteers and local conservation organizations. "The labs provide a hands-on teaching tool," says Dest, "where community leaders can see first-hand how local land-use decisions affect water quality—for example, how lack of setbacks and forest buffers could contribute polluted runoff."

By next spring, the large exhibit hall will hold interpretive displays on coastal watersheds, estuarine ecology and the process of science. A large glass window, looking into the Center's research laboratory offers visitors a literal and figurative "window into research."

The Reserve's research staff, long confined to cramped quarters, is thrilled with the well-equipped Center and the world of possibilities it offers. The Reserve can now accommodate many more research fellows and assistants, as well as visiting scientists. "The Center is a natural gathering place for many of our conservation and community partners," Research Director Michele Dionne explains. "Since we're involved in numerous cooperative research initiatives, the facility here benefits many other local and regional groups."

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Director's Column

November 2001

We could all use some good news these days and there is plenty to share in this edition of *Maine Coastline!* New data, facilities and grant funds are helping us better understand and manage coastal resources in Maine and throughout the region.

The launching of the Gulf of Maine Ocean Observing System (GoMOOS) may represent the most important technological development in coastal and ocean research for many years. Having real-time data available from the Gulf of Maine and its nearshore embayments will greatly improve our ability to manage ocean and coastal resources, and will help to launch new marine research and development initiatives.

The capacity for regional ecological analysis also received a boost this fall, with the opening of the Maine Coastal Ecology Center at the Wells National Estuarine Research Reserve. Now top-notch professional scientists and student researchers can better assess the Gulf of Maine ecosystem and determine how human activities are affecting coastal environments. The Maine Coastal Program has a strong partnership with the Reserve and helped fund dynamic new coastal watershed exhibits that will soon be installed at the Center. Please stop in to see the new facility and explore the Reserve's extensive trail network: it is well worth the trip.

The Coastal Program is extending its work on habitat restoration and will soon have a restoration coordinator on staff, thanks to a generous grant from the National Marine Fisheries Service. Additional grant funds will help us develop a restoration strategy and begin projects in coastal watersheds.

We also have a new look for the *Maine Coastline* newsletter, thanks to our consultants Marina Schauffler and Ed Geis of Headwaters Writing and Design. They will be working with us during the coming year on a variety of coastal publications. The circulation of *Maine Coastline* is increasing to include coastal legislators, other policy makers, municipal officials and land trust representatives. We welcome these new readers and hope they will find the newsletter helpful. If you have ideas for topics to cover in *Maine Coastline* or know someone who should be added to our mailing list, please give us a call at 207-287-3261 or e-mail Lorraine Lessard at lorraine.lessard@state.me.us.

Kathleen Leyden
Maine Coastal Program Director

Maine Coastline

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Evan D. Richert, AICP
Director, Maine State Planning Office

Kathleen Leyden
Director, Maine Coastal Program

Maine Coastal Program
State Planning Office
38 State House Station
Augusta, ME 04333
207-287-3216
1-800-662-4545
207-287-6489 (FAX)
www.state.me.us/spo/mcp/mcp.htm

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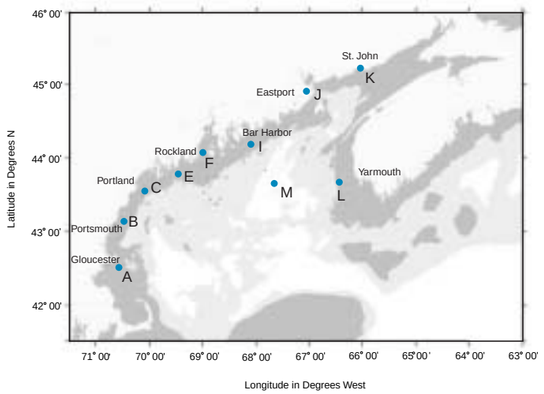
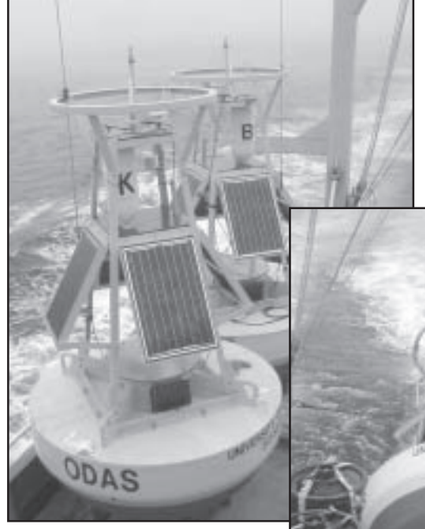
GoMOOS Moored Buoy Locations





Neal Pettigrew

GoMOOS

High-tech Buoys Mark New Era in Oceanographic Data

The Gulf of Maine Ocean Observing System (GoMOOS) recently launched ten data buoys in the Gulf from Nova Scotia to Gloucester, making regional real-time observations readily available for the first time. By visiting the GoMOOS web site (www.gomoos.org), people can get hourly reports from any of the ten locations-finding out the visibility off Cape Elizabeth, for example, or the current speed and direction in the channel between Owls Head and Vinalhaven. Data from GoMOOS buoys isn't just for oceanographers: this information makes navigation easier and safer for mariners. In extreme cases, such as search and rescue operations, it may even make the difference between life and death.

Every hour the solar-powered buoys send readings to the mainland, reporting on a range of oceanographic information: wind speed and direction, visibility, water temperature, current speed and direction, air temperature, water salinity, nutrient levels and underwater sounds. Other data will be gathered in the future as needed.

What distinguishes GoMOOS from existing ocean observing systems is its regional scale and accessibility. Scientists and students will use the buoys to better understand the Gulf of Maine ecosystem, generating information that can help improve fisheries management, protect marine habitats, predict weather and mitigate natural hazards. In addition, the buoys provide a public service for coastal residents and visitors. Their hourly reports can help commercial fishermen decide when and where to go and can alert recreational boaters to sudden weather changes. Captains and pilots navigating large vessels also rely on the buoys to operate more safely (see sidebar).

GoMOOS began in Maine because the state relies so heavily on the Gulf for transportation, fishing, recreation and tourism. Initially, the project grew out of the Governor's "Jobs From the Sea" initiative and the state's desire to maximize the Gulf of Maine's economic potential. State Planning Office Director Evan Richert, now President of GoMOOS, led the effort from an idea that started with scientists at Bigelow laboratory, The Regional Association for Research on the Gulf of Maine (RARGOM), and the Island Institute's Five-year Penobscot Bay Project. The Maine Coastal Program provided crucial early support, realizing that long-term data provided by GoMOOS would help guide coastal management decisions.

Already the project has broadened to an international partnership involving government, research, nonprofit and commercial interests from Nova Scotia to New Jersey. While GoMOOS is a pilot project, it will likely become integrated into a larger network of observing systems. "There's a lot of momentum to do this nationally," says GoMOOS lead scientist and oceanographer Neal Pettigrew. "We have both the burden and the privilege to be the first to try."

Initial funding to launch GoMOOS came primarily from an $8,000,000 grant made by the Office of Naval Research. Maine's congressional delegation is working to include a sum for the annual operating budget (estimated at $3,000,000) in upcoming Federal budgets.

The future direction of GoMOOS, a nonprofit entity, will be set by its board of directors, which includes research scientists, fishermen, captains, business people, and employees of state government and nonprofit organizations. The GoMOOS office in downtown Portland is staffed by Chief Executive Philip Bogden, a former oceanographer at the University of Connecticut, Executive Assistant Aimee Giles, IT Project Manager Jason Thaxter, and Director of Policy and Planning Josie Quintrell. Plans for the future, Bogden says, include monitoring a broader range of data and overhauling the website to make information more accessible to a wide range of users.

For more information, visit www.gomoos.org or call (207) 773-0423.

photo courtesy www.wellandcanal.ca

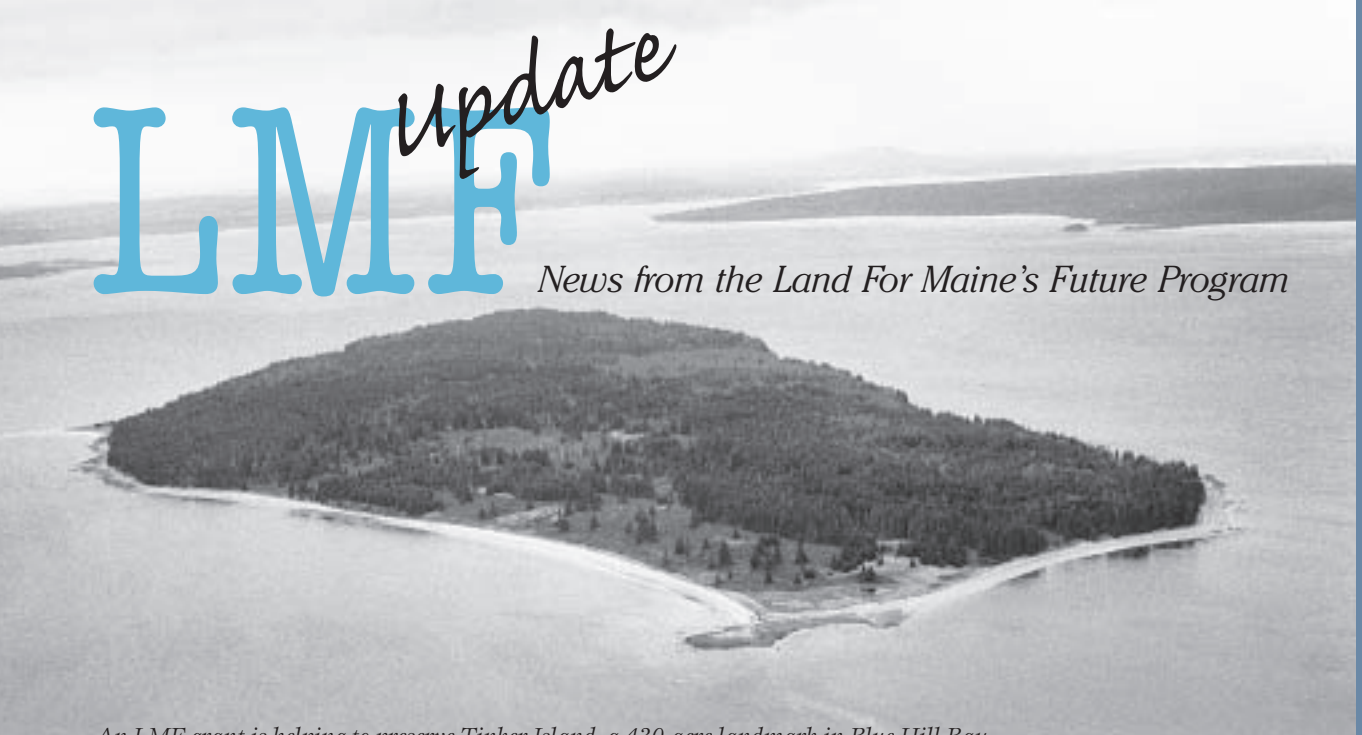
A Safer Job: GoMOOS From a Pilot's Perspective

When guiding a 700-foot petroleum tanker weighing more than 20 tons through one of the most productive lobster fisheries in the world, every advantage counts. Just ask Jeff Cockburn, who pilots large vessels through Penobscot Bay to Searsport, Bucksport, and upriver to Bangor. "GoMOOS has definitely made my job safer," he says. "We've never had access to such data before."

Cockburn often boards ships at Monhegan Island, and the entrance into West Penobscot Bay where buoy F is moored (between Owls Head and Vinalhaven) is a critical location. With hourly reports from the buoy, Cockburn always knows what to expect and can navigate accordingly. He and his colleagues at Penobscot Bay and River Pilots Association average 8-10 jobs a week, with up to 4 in a given day. In such a high-pressure environment, where potentially dangerous cargos make stakes high, GoMOOS helps keep operations running smoothly.

LMF update

News from the Land For Maine's Future Program



An LMF grant is helping to preserve Tinker Island, a 430-acre landmark in Blue Hill Bay.

Glenn Jackson

Proceeds from Maine's recent $50 million Land Bond are supporting a range of important coastal projects, several of which are nearing completion. Land for Maine's Future Program (LMF) grants will help to fund four coastal access projects and two conservation and recreation projects.

Coastal water access:

Brian Kent

- Pettegrow Beach in Machiasport (see photo at right), an all-tide boat launch, has long been used for coastal access. Recognizing that this private parcel might not remain open to the public, the town of Machiasport submitted a proposal to ensure its purchase. Both the town and Department of Conservation are providing matching funds toward the acquisition.
- The Town of Falmouth will use its LMF grant to purchase a double lot along the tidewater stretch of the Presumpscot River, providing opportunities for carry-in boat access and shore-based angling. The Department of Conservation will provide additional support.
- On the tidal section of the Kennebec River, the City of Gardiner and Gardiner Rotary Club successfully sought funding for an expanded waterfront park. The new acquisition, which links the park to other state-owned lands along the Kennebec, provides badly needed parking, a new site for launching carry-in boats (separate from the existing ramp), handicapped fishing sites, and an extended riverfront trail.
- Public access to the Tidal Falls in Hancock will be ensured through an LMF grant that enabled the local land trust, Frenchman Bay Conservancy, to purchase a conservation easement on the property.

Conservation and Recreation Sites:

- An LMF grant will help Maine Coast Heritage Trust acquire the northern half (250 acres) of Tinker Island in Blue Hill Bay, ensuring continued public access for picnicking, hunting and beachcombing.
- With funding support from LMF, the Harpswell Heritage Land Trust will secure one-half mile of pristine shoreland with public access in the Long Marsh section of Harpswell.

As these "first round" coastal projects move toward completion, a new round of proposals has arrived with more opportunities for coastal protection. The LMF Board will select finalists from that round at their January 2002 meeting.

Agency Updates

Department of Environmental Protection

Maine's DEP is launching a new phase of stormwater protection, helping to reduce the hazards that nonpoint (runoff) pollution sources pose for water bodies throughout the state. "Stormwater can cause flooding," explains DEP's stormwater coordinator David Ladd, "and it can increase the spread of pollutants such as oil, pesticides and fertilizers."

To reduce these threats, the DEP will develop standards that regulate construction sites over one acre in size; require municipalities to improve stormwater at their industrial sites (such as public works facilities); and require municipal stormwater control programs in 20 larger communities that the Census Bureau defines as urban areas. The DEP will also develop criteria that bring additional municipalities into the program, particularly those whose surface waters do not meet water-quality standards due to urban runoff.

Towns Automatically Designated to Follow the Phase II Stormwater Regulations
(due to total population and population density)

Portland	*South Berwick*
South Portland	*Bangor*
Scarborough	*Brewer*
Cape Elizabeth	*Veazie*
Falmouth	*Old Town*
Gorham	*Orono*
Westbrook	*Lewiston*
Kittery	*Auburn*
Eliot	*Sabattus*
Berwick	*Lisbon*

CBEP

New stormwater regulations should help reduce pollution reaching coastal waters.

Each participating municipality will be asked to reduce pollutant discharge to the "maximum extent practicable" through a combination of public education and outreach; detection and elimination of illicit discharges; control of construction site runoff; and municipal pollution prevention measures. "We look forward to working with DEP to create a model strategy," says Larry Nadeau, Public Works Director for the City of Saco which plans to adopt the new standards. "We need to take care of our local waterways and this effort will help us do what we were entrusted to do. Proactive measures offer a win-win approach, allowing us to make meaningful ordinances that work for the community and meet regulatory requirements."

For more information on the Phase II Stormwater reduction efforts, please contact David Ladd, DEP's stormwater coordinator, at 287-5404.

Department of Marine Resources

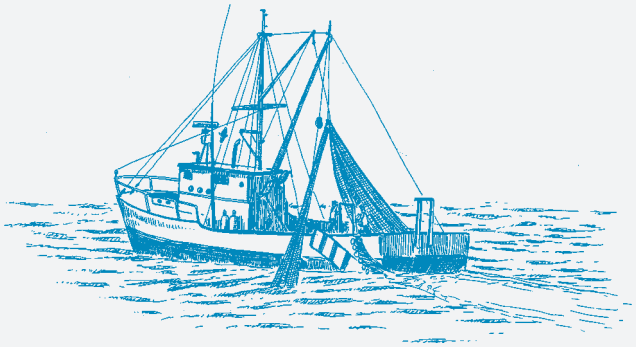
Maine's DMR is preparing a report to the State Legislature that will recommend improvements in evaluating aquaculture lease applications. The goals are to make the review process more accessible and more efficient: current applicants often must wait 18 to 24 months for a final decision. DMR plans to make its recommendations to the Marine Resources Committee by late December. For more information, contact Andrew Fisk (207-624-6554; andrew.c.fisk@state.me.us).

The Blue Hill Bay Nutrient Assessment, now in its third year, seeks to determine the bay's nitrogen carrying capacity to better guide future management decisions. If the bay is found to be at capacity, then certain federal and state restrictions will apply to the watershed (such as Total Maximum Daily Loads—TMDLs—and rules aimed at limiting nonpoint source pollution). DMR is currently waiting on lab results for data gathered last summer. For more information, contact John Sowles (207-633-9518; john.sowles@state.me.us).

The Department is reviewing its current aquaculture monitoring program, which will be expanded to include not only finfish but all forms of aquaculture. A contractor will be hired to review the current program and make recommendations for improving and broadening monitoring efforts. For more information, contact John Sowles (207-633-9518; john.sowles@state.me.us).

DMR recently conducted a third series of inshore trawl surveys, following ones done last fall and spring. The surveys seek to obtain more accurate data on Maine s inshore fisheries, particularly groundfish. Currently management decisions are based on extrapolated data from Massachusetts and offshore areas. The surveys have been controversial with lobstermen who fear the autumn dragging kills egg-bearing female lobsters when they re plentiful in coastal waters.

The conflict led to an incident off Corea October 22 when lobster boats surrounded the research trawler as it prepared to drag. John Sowles, who heads the inshore trawl survey program, attributes the incident to misunderstanding. "We all need to do a better job communicating and be willing to work together," says Sowles, "because the survey data benefit lobstermen too, not just the ground fishermen." DMR staff believe the relatively light gear used in the survey does little damage to lobsters, but will be videotaping the trawl as it is towed over the bottom before the next survey so that fishermen and scientists can see for themselves. For more information, contact John Sowles (207-633-9518; john.sowles@state.me.us).



Maine To Expand Monitoring at Coastal Swimming Beaches

While movies like "Jaws" made swimmers conscious of shark hazards, far fewer beachgoers realize the more common threat posed by high counts of fecal coliform bacteria. These benign bacteria signal the presence of sewage that can contain problematic bacteria or viruses. In Maine, numerous swimming beaches periodically experience high bacterial counts due to antiquated sewage treatment facilities or failing septic systems.


F. Marina Schauffler

Towns with older sewer systems often have "combined sewer overflows" (CSOs)—pipes that channel excess runoff and sewage into local water bodies during heavy rains. Because CSOs release untreated sewage, towns are required to monitor nearby beaches and close any that are affected. They also must provide the State with annual reports tracking their beach monitoring. Privately owned beaches are responsible for conducting a similar monitoring program.

Until now, each town involved in beach monitoring has had to create its own system for monitoring and notification. Now, with a grant sought from the U.S. Environmental Protection Agency (EPA), Maine hopes to provide municipalities with more guidance on how best to monitor beaches and notify potential swimmers. Funding will come through the federal BEACH (Beaches Environmental Assessment and Coastal Health) Act which was signed into law October 10, 2000. The Act seeks to reduce disease among users of recreational waters by improving water-quality testing at beaches and ensuring better public notification when problems are found.

The Maine Coastal Program and Maine Department of Environmental Protection (DEP) plan to form a steering committee that can assess existing forms of beach use and sampling methods and develop recommended protocols for monitoring and notification. Steering Committee members will come from the Maine State Planning Office, Maine Department of Human Services, Maine DEP, Department of Marine Resources, University of Maine Cooperative Extension, U.S. Environmental Protection Agency, and other interested parties. For more information, please contact Todd Janeski at the Maine Coastal Program: 207-287-1482 or Todd.Janeski@state.me.us.

Maine Coastal Program
State Planning Office
38 State House Station
Augusta, ME 04333-0038
http://www.state.me.us/spo/mcp/mcp.htm

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The Maine Coastal Program represents a partnership of local, regional and state agencies that work collaboratively to enhance management of the state's diverse coastal resources. Housed at the State Planning Office, Coastal Program staff work extensively with governmental agencies and community organizations such as local land trusts and regional economic development groups. Planning and outreach focus on such issues as watershed management, development issues, fisheries management, water quality monitoring, marine education, citizen stewardship, coastal hazards, marine infrastructure and habitat protection.

For more information on the Maine Coastal Program, please visit our website: www.state.me.us/spo/mcp/mcp.htm.

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